0219: A CLOSED LOOP AUDIT TO ANALYSE AND IMPROVE COMMUNICATION WITHIN THE BREAST CANCER MULTIDISCIPLINARY TEAM

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Background: Communication within any multidisciplinary team is critical to ensure best patient care. 'Best Practice Diagnostic Guidelines for Patients presenting with Breast Symptoms' [(1)] state that 'there should be clear and rapid communication between breast imaging and the breast clinic'. This continuing audit analyses and improves communication between breast clinicians and radiologists, through the use of palpation scores (ranging from 1=normal to 5=malignant) on radiology request forms.

Methods: The breast ultrasound radiology request forms over a 3 week period were analysed as to whether palpation scores as per guidelines were included. At initial audit presentation, the communication of breast score guidelines on request forms was advocated and a new specific radiology request form introduced. Re-audit was carried out prospectively.

Results: 87 patients required an USS over 3 weeks. 21.8% (n=19/87) had guideline-standard appropriate information. A prospective re-audit demonstrated an initial improvement to 76%. An additional prospective re-audit, after the implementation of a new radiology request form, demonstrated a further improvement to 92%.

Conclusions: Communication in the MDT is paramount to ensure the best care for cancer patients. The changes we have implemented, although simple, have proven to be effective and can be easily extrapolated to other similar clinical scenarios.

0292: AN ANALYSIS OF A NATIONWIDE SURVEY OF CURRENT TREND IN BREAST RECONSTRUCTION

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Aims: We aimed to assess whether recent wider use of acellular dermal matrix (ADM)-based breast reconstruction affected other methods of breast reconstruction.

Methods: An email-based survey, using surveymonkey.com®, was performed of all members of the Association of Breast Surgeons.

Results: Out of 438 members, 36 replied. 31 performed reconstruction, 29 of whom were breast surgeons. 16 surgeons worked in tertiary centres, 15 were based in district general hospitals. Occurrences of different methods performed during last year were compared with those of the preceding year. There was a significant fall in use of free flap (14.03%, $p<0.00000001$) and Latissimus Dorsi flap (18.5%; $p<0.00000001$), and a rise of implant-only (19.91%; p=0.00002), ADM (69%; p=0.000006) and other breast reconstruction methods (such as fat transfer) (279.16%; p=0.09). Commonest complications encountered in ADM-based reconstructions were 1 to 2 cases of allergy (n=4), significant bleeding (n=2), infection (n=13) and explantation (n=14). ADM of porcine origin was used mostly (n=19). Funding (never=6; sometimes=5) and faith related issues (never=14; sometimes=1) in using ADM were limited.

Conclusions: Admittedly a small response, although not so unexpected in email-based surveys, confirmed the trend of change in different methods used in breast reconstruction. This has implications on training, organisation and need for further research.

0316: NEOADJUVANT SYSTEMIC THERAPY FOR ER+ BREAST CANCER: IS IT SAFE TO ASSESS THERAPY RESPONSES BASED ON IMMUNOHISTOCHEMICAL ASSESSMENT OF MOLECULAR SUB-TYPING?

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Background: Hormonal status determined on immunohistochemistry is considered as a surrogate of breast molecular subtypes. Neoadjuvant therapy responses for the the luminal molecular subtype is determined on IHC recognised ER+surrogates. With recent studies reporting discordance between IHC and gene expression profiling molecular taxonomies, assessment of therapy responses based on IHC surrogates may be questioned.

Aim: The aim of this study was to assess pCR & clinical response rates to anthracycline-taxane neoadjuvant chemotherapy based on immunohistochemical assessment of breast molecular subtypes.

Material and Methods: A retrospective analysis was performed of the clinical and pathological data for 58 patients treated with Epirubicin Cyclophosphamide-Docetaxel between January 2009 to December 2011. Statistically significant correlations between pCR rates and molecular subtypes were determined using chi-square test.

Results: A statistically significant correlation with pCR (P=0.03) and partial clinical response (P=0.04) was found with luminal-A and erbB2 subtypes. An overall pCR rate of 9.6% was observed across all molecular subtypes. An overall partial clinical response rate based on histological subtype was 64% but considerably low in invasive lobular cancers.

Conclusions: Our study showed pCR and partial clinical response rates were significantly associated with luminal and erbB2 subtypes. A good concordance rate was observed between IHC surrogates (ER+) of luminal molecular subtype with regards to pCR rates.

0317: AUDITING COMPLIANCE WITH NICE CLINICAL GUIDELINE: QUALITY STANDARD FOR BREAST CANCER (AUG 2011) AT SALFORD ROYAL FOUNDATION TRUST (SRFT)

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Aims: To improve the care of patients with breast cancer. To determine whether the Breast unit at Salford Royal Foundation Trust is compliant with the most recent NICE Quality Standard for breast cancer care guidance.

Methods: Breast Unit practice was compared against the NICE Clinical Guideline: Quality standard for breast cancer (Aug 2011) for those patients diagnosed with breast cancer at SRFT between September 2011 and December 2011. Standard 1 was not included as it applies to primary care institutions. Standard 10 was also excluded as not enough time had elapsed between when the guidelines were published and when the audit was carried out to determine whether mammography recommendations were followed. Data was collected using the electronic patient records system (iSoft).

Results: The trust achieved 100% compliance in 6 out of 10 key areas. Areas identified for improvement included improving documentation about reconstruction discussions, giving patients written care plans and documenting discussions about adjuvant therapy.

Conclusions: It was concluded that it may be beneficial to have an electronic proforma that can be started at the time of a patient's diagnosis and continually updated at each clinic or inpatient visit to ensure that all aspects of the guidance are covered.

0318: COMPARATIVE PROTEOMIC APPROACH FOR THE IDENTIFICATION OF PUTATIVE BIOMARKERS OF NEOADJUVANT CHEMOTHERAPY RESISTANCE IN LUMINAL A BREAST MOLECULAR SUBTYPE

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Background: Neo-adjuvant chemotherapy has become a standard treatment for locally advanced breast cancer. However, resistance to chemotherapy can be a major obstacle in delivering an effective neo-adjuvant treatment in oestrogen receptor positive breast cancers.

Aims: We aimed to expand the list of identified putative biomarkers of neo-adjuvant chemotherapy resistance using fresh tumour samples in a combined (antibody microarray and 2Dgels and mass spectrometry) proteomic approach. Selected proteins from the panel will be taken forward for pilot clinical validations using a pre-treatment archival samples series to confirm the clinical relevance.

Materials and Methods: Invasive ductal oestrogen positive (luminal subtype) tumour samples were selected after receiving anthracycline neoadjuvant therapy. A total of 9 antibody microarray & three 2D-gels with mass spectrometry proteomic experiments were performed. Differential protein expression was compared between chemotherapy resistant and sensitive tumours. The combined data from all experiments was analysed using Ingenuity Pathway Analysis (Ingenuity Systems).

Results: A tota of 141 differentially expressed proteins were identified using the combined approach. Of these, 17 proteins were found in at least 2 or more experiments.

Conclusion: In addition to our previously identified panel of biomarkers from the pilot series, we have now identified a further 14 proteins that could potentially have a role as predictive biomarkers of neo-adjuvant chemotherapy resistance in breast cancer.